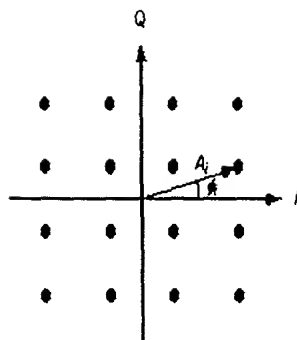
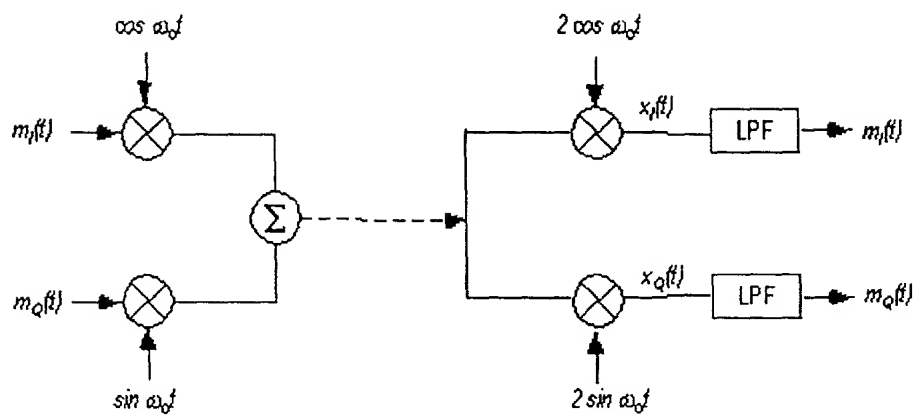


Figure 1. Poincaré Sphere Representation of Polarization State.

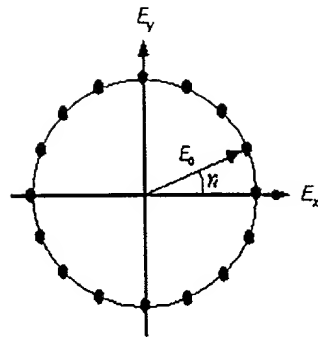


(a)

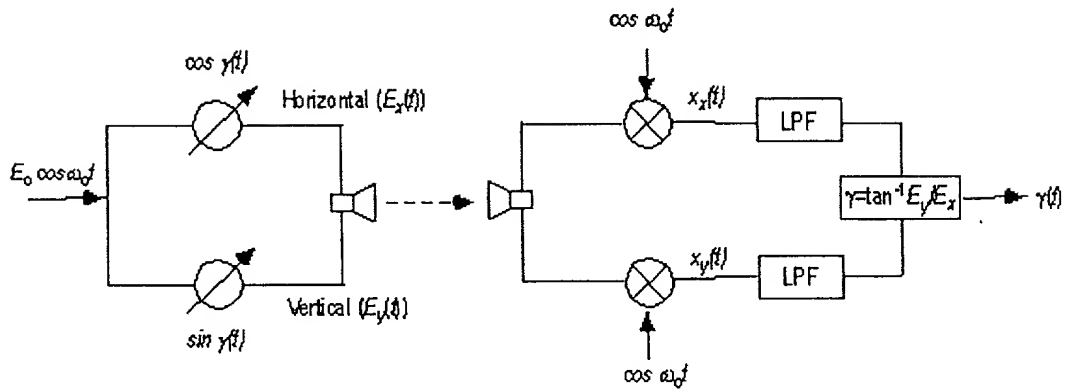


(b)

Figure 2. (a) 16-ary QAM signal vector diagram, (b) QAM Transceiver (direct conversion).

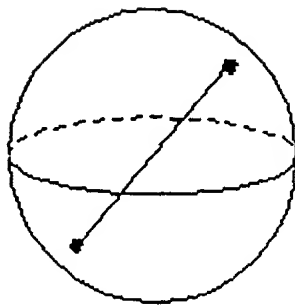


(a)

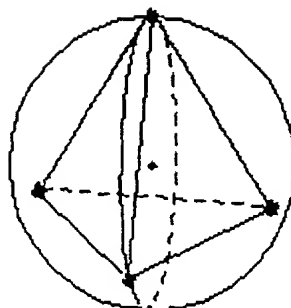


(b)

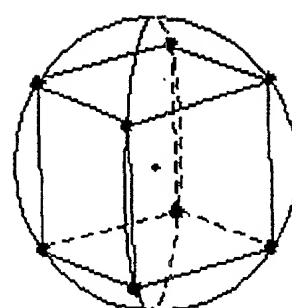
Figure 3.  $M$ -ary Linear Polarization Rotation Modulation. (a) Vector state diagram for  $M = 16$ . (b) Proposed transceiver system (direct conversion).



(a)



(b)



(c)

SPSK transmission constellations. (a) Binary, (b) 4-SPSK, and (c) 8-SPSK.

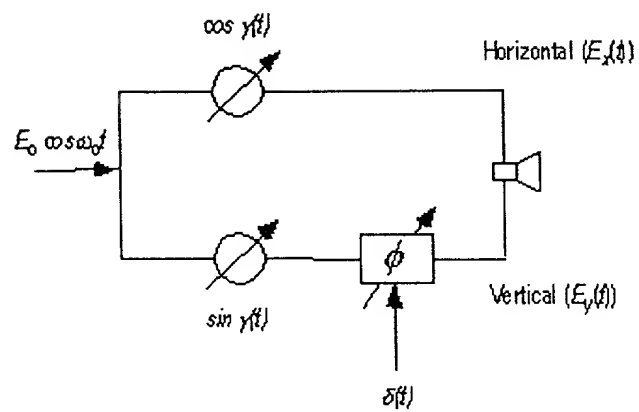


Figure 5(a). Transmitter capable of producing any polarization state for SPSK communication.

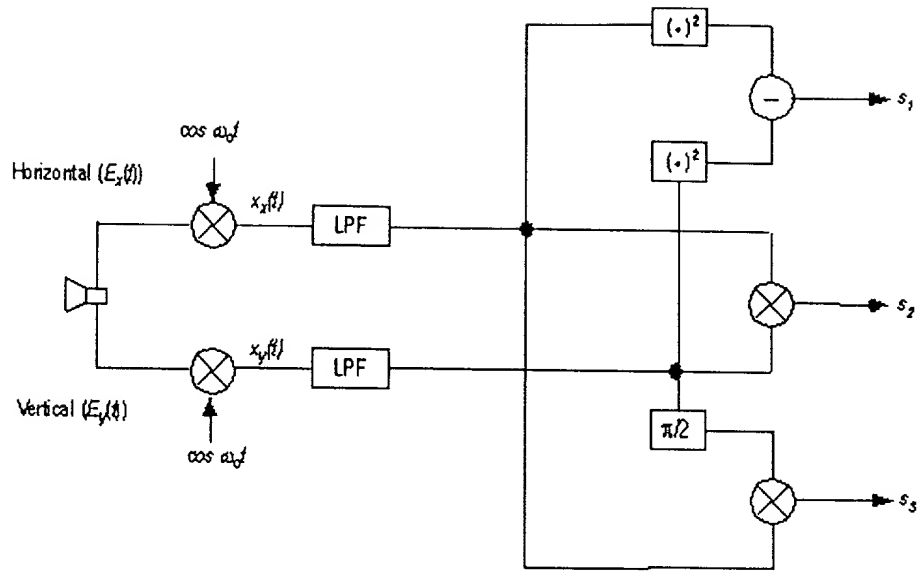


Figure 5(b). Stoke's receiver produces three Stoke's parameters based on the incoming signal.

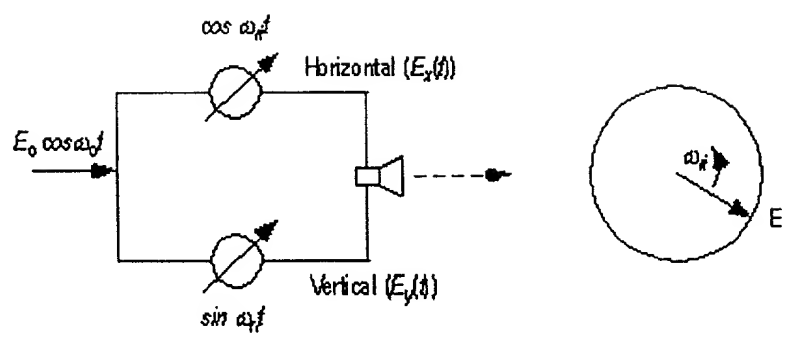


Figure 6(a). Transmitter for SPWM.